

Architecture Presentation

What is AWS EC2?

- Amazon EC2 is a service that provides scalable computing capacity
- Features virtual computing environments known as instances
- We can configure CPU, memory, storage, and networking capacity on our instances.

What is MySQL Server?

- Open-source relational database management system.

Hosting MySQL Server on EC2

- We host MySQL on an EC2 instance to gain full control of our configuration
- As opposed to running on Amazon RDS where configurations are managed by AWS

Security

- In production we will host our EC2 instances in a private subnet
- A NAT gateway will be provisioned for instance to access the internet
- We will only allow traffic from trusted instances in our VPC

Resilience

To increase the availability of our EC2 instances we make use of the following

- Amazon EC2 Auto Scaling Groups
- Multi AZ deployments
- Cloud Watch Logs
- ElastiCache
- Load balancing
- Disaster recovery across regions

Monitoring and Support

- We enable cloud watch logs on our running instances
- This allows us to dynamically provision resources based on metrics
- To aid support we will make use of the ELK stack
- Cloud watch logs will be ingested into Elastic Search
- In Kibana we can configure alerts and dashboards by querying the ingested logs

Overall Architecture Diagram

